

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:  
a first memory section which stores the image  
information given in the page memory;

5 a region recognition section which creates the  
region recognition signal of the image information  
simultaneously with storing the information in the  
first memory section;

10 a second memory section which stores the region  
recognition signal created by the region recognition  
section in the page memory;

a recognition signal modifying section which reads  
out and modifies the region recognition signal stored  
in the second memory section; and

15 an improved picture quality modifying section  
which reads out the image information stored in the  
first memory section and modifies the image information  
in accordance with the region recognition signal  
modified by the recognition signal modifying section.

20 2. The image processing apparatus according to  
claim 1, wherein the first memory section includes the  
memory section which compresses the image information  
and stores in the page memory,

25 and the improved picture quality modifying section  
reads out the image information which the first memory  
section stores, and modifies the image information in  
compliance with the region recognition signal which the

recognition signal modifying section modified when the image information is depressed.

3. The image processing apparatus according to claim 1, wherein the improved picture quality modifying  
5 section includes an improved picture quality modifying section which transforms the region recognition signal which the second memory section stores into the printing control signal, and reads out and modifies the image information which the first memory section stores  
10 in compliance with the printing control signal.

4. The image processing apparatus according to claim 1, wherein the recognition signal modifying  
15 section includes a recognition signal modifying section which reads out the region recognition signal which the second memory section stores and modifies the region recognition signal at the resolution different from the resolution of the image information.

5. The image processing apparatus according to claim 1, wherein the improved picture quality modifying  
20 section is an output gray-scale processing section which reads the image information which the first memory section stores and modifies the image information of higher resolution than the resolution of the image information in compliance with the region  
25 recognition signal which the recognition signal modifying section modified.

6. The image processing apparatus according to

claim 1, wherein the first memory section has a memory section which compresses the image information by the first compression section and stores the image information in the page memory,

5           and further has the second memory section which compresses the image information by the second compression section different from the first compression section and stores the image information in the page memory.

10           7. The image processing apparatus according to claim 1, wherein the recognition signal modifying section creates the page-by-page data of the image information and modifies the region recognition signal read from the second memory section in compliance with  
15           the page-by-page data.

            8. The image processing apparatus according to claim 1, wherein the recognition signal modifying section establishes the image mode including at least character or photograph, and modifies the region  
20           recognition signal read from the second memory section in compliance with the established image mode.

            9. The image processing apparatus according to claim 1, wherein the recognition signal modifying section establishes the image mode including character  
25           or photograph, and modifies the region recognition signal read from the second memory section in compliance with the established image mode,

and further the improved picture quality modifying section reads out the image information which the first memory section stores and modifies the color tone of the image information in compliance with the region recognition signal modified by the recognition signal modifying section.

10. The image processing apparatus according to claim 1, wherein the improved picture quality modifying section reads out the image information which the first memory section stores and the region recognition signal modified by the recognition signal modifying section, compresses these and stores in the storage unit different from the page memory, further depresses and reads out these, and modifies the image information in compliance with the region recognition signal modified by the recognition signal modifying section.

11. The image processing apparatus according to claim 1, wherein the first memory section includes a memory section which compresses the image information, and stores the parameters for improved picture quality required after depression as recording control signals associated with the compressed image information in the page memory,

and the improved picture quality modifying section reads out the image information which the first memory section stores and the region recognition signal modified by the recognition signal modifying section,



or not in compliance with the feature amount;

5 a modifying section which transforms the region  
recognition signal stored in the second memory section  
into the printing control signal when the recognition  
section recognizes the image information as the black  
and white image; and

10 a color modifying section which transforms the  
image information into the black and white image, and  
modifying and outputs the image in compliance with the  
printing control signal transformed by the modifying  
section.

14. The image processing apparatus according to  
claim 1, further comprising:

15 an external interface which transmits the  
recognition signal modified by the recognition signal  
modifying section and the image information modified by  
the improved picture quality modifying section to a  
plurality of the image forming apparatus.

15. An image processing apparatus comprising:

20 the first memory section which stores the image  
information given in the page memory;

25 an attribute recognition section which generates  
the attribute information of the image information  
simultaneously with storing the information in the  
first memory section;

the second memory section which stores the  
attribute information created by the attribute

005521-12204  
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recognition section in the page memory;

a attribute information modifying section which reads out and modifies the attribute information stored in the second memory section; and

5 a gray-scale modifying processing section which reads out the mage information which the first memory section stores and modifies the image information in compliance with the attribute information which the attribute information modifying section modified.

10 16. The image processing apparatus according to one of claims 1 and 15, characterized in that the recognition signal modifying section has further a color modifying section which transforms either one of the region recognition signal or the attribute  
15 information into the printing control signal and modifies the color of the image information in compliance with the printing control signal.

17. The image processing apparatus according to claim 16, further comprising:

20 a parameter setting section which sets parameters for carrying out a plurality of picture quality control on the printing control signal; and

a processing section which processes a plurality of image information in compliance with the parameters for picture quality control which the setting section  
25 established.

18. The image processing apparatus according to

claim 16, further comprising:

a color modification changing section which corrects at least one of the color characteristics and differential color characteristics of a plurality of image forming apparatus in compliance with the printing control signal.

19. An image processing apparatus comprising:

the first storing means for storing the image information given in the page memory;

a region recognition means for creating the region recognition signal of the image information simultaneously with storing the information in the first memory section;

the second storing means for storing the region recognition signal created by the region recognition means in the page memory;

a recognition signal modifying means for reading out and modifying the region recognition signal stored in the second memory section; and

an image information modifying means for reading out the image information which the first storage means stores, and modifying the image information in compliance with the region recognition signal which the means for modifying the recognition signal modified.

20. An image processing apparatus comprising:

the first storing means for storing the image information given in the page memory;



an attribute recognition means for creating the attribute information of the image information simultaneously with storing the information in the first memory section;

5           the second storing means for storing the attribute information created by the attribute recognition means in the page memory;

10           an attribute information modifying means for reading and modifying the attribute information stored in the second memory section; and

15           an image information modifying means for reading out the image information which the first storage means stores, and modifying the image information in compliance with the attribute information modified by the attribute information modifying means.

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